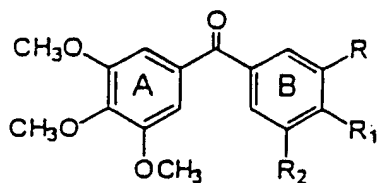


CLAIM LISTING

1. (Currently Amended) A method of synthesizing phenstatin comprising the steps of :
oxidizing 3-(~~tert~~-butyl dimethylsilyl)oxy-4-methoxybenzaldehyde with potassium permanganate to form the corresponding carboxylic acid;
converting said carboxylic acid to the corresponding acid chloride;
treating said acid chloride with the lithium derivative obtained from 3,4,5-trimethoxybenzene and t-butyllithium to form a protected product; and
deprotecting said protected product to form phenstatin.
2. (Currently Amended) A method of synthesizing phenstatin prodrug comprising the steps of:
phosphorylating phenstatin with dibenzylphosphite in the presence of bromodichloromethane to form a phosphate ester;
cleaving the benzyl groups from said phosphate ester by means of catalytic hydrogenolysis; and
reacting the cleaved phosphate ester with sodium methoxide to produce the phenstatin sodium phosphate prodrug.
3. (Currently Amended) A method of inhibiting cancer cell growth and tubulin polymerization in an environment inflicted therewith comprising: introducing into said environment a pharmaceutically acceptable carrier and a small but effective amount of phenstatin prodrug.

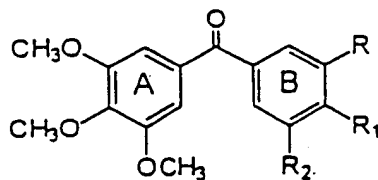
AMENDMENT IN RESPONSE TO SECOND OFFICE ACTION
U.S. Application Serial N . 09/582,592

4. (Currently Amended) Phenstatin prodrugs and derivatives thereof having the structure:



wherein when R=H and R₁ = OCH₃, R₂ is OPO₃Na or OCOCH₃ and when R=R₂, R₂ is OCH₃, CH₃, Cl or F and R₁ is H and when R₁ = R₂, R₂ is OCH₃ and R is H.

5. (Previously presented) A method of inhibiting human cancer cell growth in a host inflicted therewith comprising administering to said host in a pharmaceutically acceptable carrier a small but effective amount of a compound selected from the group consisting of phenstatin, phenstatin prodrug and the derivatives thereof having the structure



wherein when R=H and R₁=OCH₃, R₂ is OPO₃Na₂, OCOCH₃ or OCH₃ and when R=R₂, R₂ is OCH₃, CH₃, Cl or F and R₁ is H and when R₁= R₂, R₂ is OCH₃ or OCH₂O and R is H.